IN THE CLAIMS

Please cancel claims 1-16. Please add the following new claims in accordance with the following rewritten claims in clean form.

17. (New) A vibrating piece comprising:

a base; and

a vibration arm section formed so as to protrude from the base, a grooved portion being formed in at least one of an obverse surface and a rear surface of said vibration arm section;

wherein a cut section is formed in said base, and

an electrode section is formed in a part of said grooved portion.

18. (New) A vibrating piece according to Claim 17, wherein:

a grooved portion is formed in at least one of the obverse surface and the rear surface of said vibration arm section; and

an electrode section is formed in a part of said grooved portion so that a crystal impedance value ratio of said vibrating piece becomes 1.0 or more.

19. (New) A vibrating piece according to Claim 18,

wherein a longitudinal length of the electrode section formed in said part of said grooved portion of said vibration arm section is approximately 45% to approximately 55% of a length of said vibration arm section.

20. (New) A vibrating piece according to Claim 17, wherein said electrode section further comprises an excitation electrode.

21. (New) A vibrating piece according to Claim 17, wherein:

a fixation area for fixing the vibrating piece is provided in said base; and

said cut section is provided in the base between the fixation area and said vibration arm section.

22. (New) A vibrating piece according to Claim 17, wherein said vibrating piece further comprises a tuning-fork vibrating piece formed by a crystal which oscillates at approximately 30 kHz to approximately 40 kHz.

23. (New) A vibrator having a vibrating piece housed in a package, said vibrating piece comprising:

a base; and

a vibration arm section formed so as to protrude from the base, a grooved portion being formed in at least one of an obverse surface and a rear surface of said vibration arm section;

wherein a cut section is formed in said base; and

an electrode section is formed in a part of said grooved portion.

24. (New) A vibrator according to Claim 23, wherein:

a grooved portion is formed in at least one of the obverse surface and the rear surface of said vibration arm section; and

an electrode section is formed in a part of said grooved portion so that a crystal impedance value ratio of said vibrating piece becomes 1.0 or more.

25. (New) A vibrator according to Claim 24, wherein a longitudinal length of the electrode section formed in said part of said grooved portion of said vibration arm

section is approximately 45% to approximately 55% of a length of said vibration arm section.

26. (New) A vibrator according to Claim 23, wherein said electrode section further comprises an excitation electrode.

27. (New) A vibrator according to Claim 23, wherein:

a fixation area for fixing the vibrating piece is provided in said base; and

said cut section is provided in the base between the fixation area and said vibration arm section.

28. (New) A vibrator according to Claim 23, wherein said vibrating piece further comprises a tuning-fork vibrating piece formed by a crystal which oscillates at approximately 30 kHz to approximately 40 kHz.

29. (New) A vibrator according to Claim 23, wherein said package is formed in a box shape.

30. (New) A vibrator according to Claim 23, wherein said package is formed in a cylinder shape.

31. (New) An oscillator having a vibrating piece and an integrated circuit housed in a package, said vibrating piece comprising:

a base; and

a vibration arm section formed so as to protrude from the base,

wherein a cut section is formed in said base; and

an electrode section is formed in a part of said grooved portion.

32. (New) An electronic device using a vibrator which is connected to a control section, said vibrator having a vibrating piece housed in a package, said vibrating piece comprising:

a base; and

a vibration arm section formed so as to protrude from the base;

wherein a cut section is formed in said base; and

an electrode section is formed in a part of said grooved portion.

REMARKS

The purpose of this preliminary amendment is to clarify the translation, cancel certain claims, and add new claims. Favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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